

Space Protection and Activation of Traditional Settlement in Jiufanggou, Ta-pieh Mountains, Hubei

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Abstract—This paper focuses on the protection of residents' living conditions while the traditional settlements are properly protected and studies on how to protect and activate the traditional settlement space, so that the traditional settlements that once flourished and prospered will be reborn. Firstly, starting from the research of traditional settlement protection theory in China, the relevant historical literature research in China and foreign countries has been consulted and analyzed, and on-the-spot research and investigation on the traditional settlement of Jiufanggou has been conducted. Then, the current situation of the traditional settlements in Jiufanggou has also been recorded, and the protection and activation of the traditional settlements in Jiufanggou has been studied and analyzed from both theoretical and practical aspects. Finally, research and investigation results have been concluded. Combined with the core values of settlement protection against the background of rural revitalization strategy, the protection measures for the traditional settlement space of Jiufanggou has been guided, as well as the activation and utilization strategy of the traditional settlement of Jiufanggou under the new era new order, providing a meaningful reference for the traditional settlement protection work in the future.

Keywords—traditional settlement; settlement space; protection development; activation and utilization

I. INTRODUCTION

With the 40 years of reform and opening up, urban expansion, village transformation, urban town expansion, and neglect of the consciousness of inheritance and protection of traditional settlement culture have caused great damage to traditional settlements. At the same time, the development of the tertiary industry has also caused a certain degree of impact and damage to the traditional settlements. According to survey data, traditional villages in China are declining at an average rate of one disappearing every three days, including traditional settlements with a long history, profound cultural heritage and extremely high cultural value.

This paper selects the traditional settlements of Jiufanggou in Ta-pieh Mountains, Hubei Province as an example ("Fig. 1", "Fig. 2"). Through field investigation, visits, mapping and surveying investigation, and collecting historical documents related to it, based on the investigation, this paper is to make people understand the existing problems, historical evolution and development process of

the traditional settlements in Jiufanggou, comprehensively understand the architectural features and original features of the traditional settlements in Jiufanggou, and deeply consider the protection development and activation planning of the traditional settlements in Jiufanggou.



Fig. 1. Aerial photograph of Jiufanggou settlements (author's self-photograph).



Fig. 2. Photograph of overall landscape of Jiufanggou (author's self-photograph).

II. JIUFANGGOU TRADITIONAL SETTLEMENT SPACE STRUCTURE

The traditional settlement space of Jiufanggou is composed of two main regional spaces, namely the traditional settlement buildings of Jiufanggou and the surrounding areas. Jiufanggou buildings are arranged in sequence, and the buildings are composed of center halls, dwellings, Qinglongtai and ancient bridges, thus forming a group of ancient settlements that are relatively intact and preserved. Starting from the ancestral hall of the settlements,

along the main street from east to west, most of the dwellings are renovated and built after the founding of New China. The surrounding areas are for settlement crops, farmland and mountains. Therefore, the traditional settlement of Jiufanggou is divided into external landscape space and internal building space through the division of this spatial structure.

A. Jiufanggou Traditional Settlement Space Transformation Opportunity

Comprehensively researching the historical literature, the Jiufanggou settlement has experienced four stages from the rise to development to prosperity and to the decline from the end of the Ming Dynasty. The whole begins from the center halls, and then spreads to the sides, and then extends eastward. During the period of development, due to land reform, the division of real estate rights and the occupancy of farmers, Jiufanggou settlement had stepped into the period of the overall decline. Due to the history of the folds, it is difficult to find the pure remains of the settlement group at a certain time. Almost all the local dwellings have experienced the simple restoration after the decline period.

B. External Space of Jiufanggou Traditional Settlement

1) *Water system space structure:* The water system of the Jiufanggou settlement is mainly composed of the collection stream on the Zhajiji Ridge. It connects the Fengdian Reservoir from the south to the east, then enters the Ganhe River and finally flows into the Huaihe River. The Jiufanggou settlement is located in the north of the stream, built on the basis of the lie of the mountain. And the stream in south is intercepted into a pond by the dam. ("Fig. 3")

The main source of water and irrigation for villagers in Jiufanggou settlement is its mountain spring. There are water wells excavated in the village and there are also open trenches and closed conduits (see "Fig. 4"). The pond is made up of rainwater and some springs. Due to the high rainfall and the small number of residents, the main drainage system is spontaneously drained, partially infiltrated into the farmland and partly into the pond. According to the investigation, the traditional settlement of Jiufanggou does not have a complete drainage system to organize the discharge of all the rainwater and sewage.



Fig. 3. Photograph of Jiufanggou pond water system (author's self-photograph).



Fig. 4. Photograph of Jiufanggou open trenches (author's self-photograph).

2) *Traffic space structure:* The traditional settlement of Jiufanggou is located in a relatively closed area in the southern part of Ta-pieh Mountains in Hubei Province. It is surrounded by mountains, with a single structure of traffic space. There is only one road connected with the outside world. The roads built around the mountain are poor and cannot withstand large passenger flows. Until the 1980s and 1990s, in order to facilitate the villagers to enter and leave the settlement, a main road has been expanded, from the east through the Taoling Village Committee to the Fengdian Township. It can reach the Fengdian Reservoir in the direction of the northeast, the Bazigou in the south, and the Jinji Ridge in the west. Some of the road surface has been hardened.

The interior of the settlement is basically the transportation system structure that maintains the original main street and the roadway. It can enter the center halls and courtyards of each family on both sides through the roadway. The road damage in the main street and some streets of the village is extremely serious, and the original paving bricks and surface has ceased to exist ("Fig. 5"). The original street space extending in all directions has been blocked or destroyed, losing the original spatial structure ("Fig. 6").



Fig. 5. Photograph of Jiufanggou main street (author's self-photograph).



Fig. 7. Photograph of partial roof (author's self-photograph).



Fig. 6. Photograph of partial street alley (author's self-photograph).



Fig. 8. Photograph of gate house plaques (author self-photo).

C. Internal Space of Jiufanggou Traditional Settlement

1) *Building space structure*: The space structure of the traditional settlement buildings in Jiufanggou can be roughly divided into two categories from the plane layout. The first type is a simple and direct single courtyard type; the second type is a multi-court mixed form, with the roadway as the main axis, built according to the terrain, and distributed in a stepped manner. The interior of the settlement courtyards had been connected to each other, but it is now closed.

The traditional settlements of Jiufanggou are mostly brick-and-wood structures from the three-dimensional structure. Inside of the walls, it is the rammed earth, blue bricks and black tiles, and the roofs are mostly in form of gable and hip double-slope. Eaves, columns, door frames, door arches, stairs, etc. are all made of stone ("Fig. 7"). The overall style of the building is dignified and elegant, and the doorway is decorated with classical finishes and carved flowers. The style is cumbersome and complicated. Some of the gatehouses are also engraved with characters, such as on the plaque on the lintel of the second house, there are characters of "诗书门第 (family of poems and books)" (see "Fig. 8").

2) *Node space structure*: There are three types of Jiufanggou settlement node space: traffic node space, central activity space, and residential entrance space ("Fig. 9", "Fig. 10").

Jiufanggou has a prominent crossroads. To the east, it is the village committee of Jiufanggou. To the west, it is the main road through the settlement. It is mainly composed of three families and an ancestral hall. This node is the main traffic node of the area and leads to the surrounding areas. The central area of the settlement is mainly used for activities and interactions. The area is large and the frequency of residents' activities is high. Due to lack of resources and economic constraints, it is not rich in recreational activities. There is only one small shop in the entire settlement, and a small space is also formed by the small shop for the local residents to entertain. Due to the small population of residents, the role of settlement nodes is not obvious, and it mainly serves as a traffic guide.



Fig. 9. Photograph of residential entrance space (author's self-photograph).



Fig. 10. Photograph of residential entrance space (author's self-photograph).

III. JIUFANGGOU TRADITIONAL SETTLEMENT SPACE PROTECTION

A. Building Interior Space Protection and Development

The traditional settlement of Jiufanggou is slowly losing its original meaning and simplicity. The settlement of the original features is decreasing, and the expansion of the building and the aging of the population have made the buildings tend to be abandoned. It is extremely urgent to re-examine the protection of the traditional settlement buildings in Jiufanggou.

When protecting the traditional settlements in Jiufanggou, it is necessary to respect and comprehend the original spirit and style expressed by the building itself, and then carefully investigate and study it. Under the premise of ensuring the same, the building should be updated and maintained as necessary. For the buildings with serious damage, it will be a must to take the method to study the buildings one by one, and design a targeted plan in combination with each damaged building itself. Secondly, for the unreasonable structure inside the building, such as house lighting, ventilation, temporary construction of livestock sheds and toilets, etc., they should be demolished and optimized without changing the original building structure, paying attention to organic optimization, and the coordination between new and old. In the aspects of post-material selection and rectification construction, it is necessary to fully consider the local materials and adapt to local conditions in order to save construction economic costs.

The protection of Jiufanggou settlement cannot rely solely on the intervention of external forces, and more it needs the local residents to participate in governance and

maintenance. Residents of Jiufanggou have lived here for generations, so they can better understand their living environment. The protection and design planning of any village, whether the rectification policy is reasonable, the local residents are in the main status and have the most right to speak. The government departments should fully mobilize the enthusiasm of the local residents, establish and improve various aspects of the protection mechanism, and make the protection of the traditional settlement buildings in Jiufanggou more standardized.

B. Landscape External Space Concentration and Decentralization

In the protection and development of traditional settlements, it is necessary to fully exploit and utilize the local historical landscape elements of Jiufanggou. It is also necessary to restore the traditional landscape space and the traditional historical features of the settlement on the basis of respecting the status quo of the settlement. On the basis of maintaining the original traffic network structure of the settlement, the overall transportation facilities will be restored and improved. The landscape space is protected by the imprint of the existing ancient trees, ancient wells, Qinglongtai and threshing ground. Through the existing street space pattern, the original street space is restored and optimized, and the functional design is added to increase the practicality. In terms of materials and construction technology selection, traditional materials are used to retain the cognition of the modified streets.

The rich historical landscape resources and well-preserved water and ore resources of Jiufanggou Village are the premise of protection. The ponds inside the village provide the prerequisites for the formation of a complete linear landscape space structure. From this, it is possible to tell the story of the Jiufanggou traditional settlement from prosperity to decline and then to development. Through four modules of the creation of the folk custom and culture, the reunion of the settlement, the red anti-war revolution, and the rural life experience, the transportation space, the architectural space and the landscape space are organically combined. Integrating the narrative elements into the landscape space and strengthening the narrative subject can make people feel the changes in the traditional settlement of the Jiufanggou in the restoration of the settlement space.

C. The Core Value of Traditional Settlement Protection Under the Rural Revitalization Strategy

With the rapid progress of the cultural industry, China begins to develop and promote traditional settlements, proposes the implementation of the rural revitalization strategy, emphasizes the acceleration of the process of urban-rural integration, vigorously develops new rural construction, and protects and develops traditional ancient settlements.

In the process of reconstruction of rural order such as new rural construction and rural autonomy, the life and production of traditional Chinese settlements are closely related to the land. In the book "Local China", Mr. Fei Xiaotong proposed to use the traditional Chinese culture and

its core values to understand the rural culture, and to reflect the real life needs of the residents as the work objectives, to deeply think about the content, meaning and existence of the rural life, and to re-cognize and construct the traditional rural value system, being of vital importance to the implementation of the rural revitalization strategy. In the field of art design research, Chinese scholars have carried out in-depth exploration of the relationship between traditional settlements, ecology and social production from the perspectives of humanities, geography and science, and constructed and formed a series of core value systems for traditional settlement protection. These studies highlight the importance of the protection and development of traditional settlements and the importance of implementing rural revitalization in the future.

IV. ACTIVATION AND UTILIZATION OF THE TRADITIONAL SETTLEMENT SPACE IN JIUFANGGOU UNDER THE NEW ORDER

A. *Primary Exploration of "Micro-intervention" Activation and Utilization Model*

Against the background of the current urbanization process and the adjustment of rural industrial structure, the research points of historical researchers on the protection and activation of the traditional settlements of Jiufanggou with unique historical and cultural values are:

- How to plan and control the spread of "empty villages" caused by the decline of the architectural landscape space, the aging of the population, and the employment of migrant workers;
- In the process of activation, how to grasp the scale of activation and utilization under the premise of not affecting the existing features of traditional settlements and the living and working of local residents;
- How to explore a new research idea for the sustainable development of the activation and utilization of the traditional settlements in Jiufanggou.

Based on the above research points, the application of "micro-interventional therapy" was applied to the activation and utilization of the traditional settlements of Jiufanggou. In accordance with the basic principles of point-to-face, from the outside to the inside and according to local conditions, it is necessary to respect the original spatial pattern of the traditional settlements in Jiufanggou, and use the appropriate form to introduce the "micro-intervention" on the three levels of government orientation, cultural experience and technical restoration. The government-oriented level is implemented with municipal infrastructure and public supporting services; the cultural experience level is involved in the overall pattern of the traditional settlements in Jiufanggou, the courtyards with serious partial damage, the abandoned vacant courtyards, the well-preserved single buildings and the dwellings in the surrounding construction control areas; and technical restoration level is involved in the construction of ruined buildings with severe damage, broken and collapsed

walls, and buildings that were later remodeled and built randomly. The three learn from each other's strengths, step by step, and achieve the goal of efficient analysis to solve existing problems, so that it can achieve the most "micro" effect in the most appropriate way, improve the quality of life of residents, bring economic benefits, ease the contradiction between residents and residents during the process of protection and activation, and stimulate local residents to participate in the spontaneity of the protection and activation of traditional settlements in Jiufanggou, which can provide a reference for the development of the stability of settlement activation.

B. *The Integration of "Internet Plus" and Traditional Settlement Culture*

In the context of the "Internet +" era, how to use new media and combine its own advantages to become the focus of exploration is a new challenge. In the Jiufanggou traditional settlement activation design plan, the needs of modern life can be integrated into its traditional settlement space. For example, the original residential site can be transformed into the Jiufanggou Historical Museum to enhance residents' sense of belonging and cultural cognition, and integrate it into new media technologies to attract more young people to understand and promote the history of traditional settlements; the ancient trees, ancient wells, Qinglongtai and each ancient building left in the Jiufanggou settlement can create their own unique multimedia labels, tap the depth of culture, and produce cultural and creative products. The production of Culture and Creation products is the product of the blending of art design and settlement history, in order to take this opportunity to improve the cultural literacy of residents, and establish the Jiufanggou Traditional Settlement Culture and Creation Center to attract more young people to return home to start a business.

C. *Practice and Thinking of Design Participation and Social Innovation*

In the context of the great task of revitalizing the countryside, the discipline and the openness of the design discipline provide a unique and unique advantage for the design participation in the traditional settlement activation. Through the comprehensive comparison of the frontier design transformation theory for complex social problems and the design participation experience of social innovation, this paper proposes strategies and methods for the activation and utilization of Jiufanggou traditional settlements in design participation and social innovation practice.

In the design participation process, the results of design innovation practice and thinking can be summarized into three aspects:

- Through the investigation and tracking research on the traditional lifestyle and cultural resources of Jiufanggou settlement, it can create a diversified ecological culture, continuation and inheritance of the social value system of settlement.
- It is necessary to create a characteristic cultural industrial chain of Jiufanggou according to local

conditions, highlight the cultural charm and economic value of the settlement culture, and expand the cultural influence of the settlement, thus creating a typical knowledge-driven regional economic innovation model.

- It is also a must to conduct interviews with local residents on protection and activation, cultural and economic conflicts, and let local residents form their own sense of identity protection for settlement culture. Constructing public service facilities that integrate culture and technology, on the basis of local cultural resources, can make local residents gain happiness and satisfaction with the development and utilization of settlements through exchanges and creations. It also gives foreign tourists a feeling of empathy and appreciates the core values and significance of the protection and activation of traditional settlements in rural revitalization and new rural construction.

V. CONCLUSION

The protection and activation of traditional settlements is not only the repair of the material carrier of architecture, but also the inheritance of traditional settlements, traditional culture and customs, and the coexistence of cultural heritage and modern life.

To realize the space protection and activation of the traditional settlements in Jiufanggou, it is necessary for the people to not only stay at the material level, but also seek the long-term development of the settlements, making full use of the value advantages of the settlements to attract foreign capital, and driving the enthusiasm of the residents to seek new development opportunities of the settlement.

It will be a must to deeply explore the constituent elements and core values of the traditional settlements in Jiufanggou, and clearly formulate sustainable development protection strategies that can be implemented. Under the premise of the current national conditions and market orientation, based on its unique ecological environment, based on the historical and cultural background, guided by the characteristics of settlement values, starting from protecting the development of the traditional settlement of Jiufanggou, it is necessary to activate and use the internal space as the foothold, create the endogenous power of the traditional settlement, promote the virtuous circle of the settlement itself, and realize the sustainable development of the traditional settlement of Jiufanggou.

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